State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LOS ANGELES REGION

ORDER NO. R4-2013-00xx

REVISED WASTE DISCHARGE REQUIREMENTS AND WATER RECYCLING REQUIREMENTS
FOR

A MODIFIED PROJECT AND TITLE 22 RECYCLED WATER DISCHARGE

ISSUED TO

BMIF/BSLF RANCHO MALIBU LTD. PARTNERS
(Encinal Canyon Water Recycling Plant on Tract 46277)

(File No. 90-069, CI No. 7020)

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

PURPOSE OF ORDER

1. BMIF/BSLF Rancho Malibu Ltd. Partners (hereinafter Discharger) is subject to Waste Discharge Requirements (WDR) Order No. 91-021 and Monitoring Reporting Plan (MRP) CI 7020 adopted by the Regional Board on January 28th, 1991 for 70 single family homes, a 25,000 gallon per day (gpd) water recycling plant with disposal by spray irrigation, a 64,000 square feet leachfield with groundwater monitoring and a golf course at about 3600 Encinal Canyon Road on Tract 46277 (hereinafter Rancho Malibu). The site covers 270 acres, of which less than 50 acres were planned for development. No construction has yet taken place.

2. On October 23, 2008, the Discharger submitted a revised engineering design for 100% recycled water reuse by irrigation. The revised development includes 46 single family residences and the Encinal Canyon Water Recycling Plant (hereinafter Plant) shown on the Rancho Malibu (Figures 1, 2 and Map 1). The Discharger proposes to build the Plant, but ownership is expected to be transferred to the Los Angeles County Department of Public Works. The Plant will produce an average of 17,500 gallons per day (gpd) with a peak flow of 35,000 gpd of effluent treated to Title 22 recycled water quality for disposal through irrigation.

3. On June 24, 2009, the Regional Board received a Report of Waste Discharge (ROWD) for a design with 46 homes and more open space. The ROWD was an update to an October 23, 2008, request to modify the existing permit. The purpose of this Order is to allow discharge that is consistent with existing policies and technical information about the location and facility.

4. California Water Code section 13263(e) provides that all waste discharge requirements shall be reviewed periodically and, upon such review, may be revised by the Regional

Board. These revised WDR and Water Recycling Requirements (WRR) include the new engineering design, effluent limitations, updated provisions, and an expanded monitoring and reporting program.

5. The Onsite Wastewater Treatment System (OWTS) at Rancho Malibu is in the County of Los Angeles, located northwest and outside of the Malibu Civic Center Prohibition area defined in Order R4-2009-007, where OWTSs are prohibited.

DESCRIPTION OF THE SITE

6. Conditions: Rancho Malibu covers approximately 270 acres near Encinal Canyon in west Los Angeles County, more than 5,000 feet inland from the Pacific Ocean. Despite receiving approval for grading from the California Coastal Commission on March 13, 2001, the California Coastal Sage and Chaparral Ecosystem covering the site has been preserved.

7. Hydrology: Percolating, seasonal, perched water lies above a regional groundwater table greater than 30 feet in depth at the site. Trenching shows thin alluvium, underlain by middle Miocene sedimentary and intrusive basaltic rocks, which are moderately to highly fractured and are seen in outcrops extending to sea level.

8. Slope Stability: Landslide risk was quantified using the shear strength of samples from six test pits in June 2009. The test shows that the proposed irrigation field is not expected to have an adverse effect on the adjacent slope areas with good management.

9. Location: Rancho Malibu is located in the Basin Plan Hydrologic Unit 404.41 Malibu Basin -Camarillo Area - Encinal Canyon Subarea, Department of Water Resources Basin Number 4-22 and at 34° 3' 5"N, 118° 52' 18" W.

DESCRIPTION OF FACILITY AND TREATMENT PROCESS

10. Compliance Status: The site remains undeveloped although WDR Order No. 91-021 and MRP CI 7020 were adopted in 1991. In response to staff's request in July 12, 2012 email, the Discharger submitted 21 years of 'no discharge' reports in July 2012 and has complied with all the reporting requirements of the existing WDR Order.

11. Land Use: Rancho Malibu was approved by the County of Los Angeles and the Coastal Commission for a 270.1 acre subdivision. The area that will be disturbed as a result of the construction of the subdivision is 38.5 acres. The remainder of the property is to be dedicated as either private or public open space. The development includes 46 single family lots and one lot for a wastewater treatment facility, one street lot, and three open space lots. The project will alter or partially fill a total of 1,380 linear feet of ephemeral stream within the development. The Discharger may choose to manage the open space so as to preserve the local chaparral ecosystem.

12. Plant Design: The proposed Plant will use membrane filtration and chlorine disinfection to produce an average of 17,500 gallons per day (gpd) of Title 22 recycled water for discharge by irrigation and fire suppression. The treatment process utilizes the following components:

    a. A 7,800-gallon concrete trash trap/screen,

b. A 14,000-gallon concrete equalization tank,
c. Twenty clustered 1,200-gallon anoxic/aerobic treatment tanks,
d. Two membrane filtration units,
e. A chlorine injection system for effluent disinfection,
f. Two 8,000-gallon fiberglass chlorine contact tanks,
g. An effluent sampling station,
h. One 17,500-gallon off-spec water holding tank,
i. An effluent pump station,
j. Two reclaimed water storage tanks, estimated to hold 700,000 gallons each,
k. A recycled water sampling station,
l. Irrigation pumps and computer management system; and
m. An irrigation distribution system.

13. Irrigation Control: Areas designated to receive irrigation water will be under the control of the Discharger and will consist of private land with the necessary permanent easements to accommodate irrigation equipment. The areas of irrigation are located within Encinal Canyon in the Malibu Valley Hydrologic Unit. The timing and volume of the irrigation discharge has been calculated to equal evapotranspiration during night and dry weather disposal and will be implemented by a computer irrigation management system and landscape manager. Voluntary discharge to the subsurface through incidental runoff or over-irrigation is limited by this oversight.

14. Storage: The Plant design is for 100% irrigation recycling. However, if effluent cannot be discharged through irrigation or during system malfunction, storage is available in the two 700,000- gallon tanks. The storage plan complies with the California Department of Public Health (CDPH) requirements for alternative disposal.

APPLICABLE PLANS, POLICIES AND REGULATIONS

15. Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan): On June 13, 1994, the Regional Board adopted a revised Basin Plan. The Basin Plan (i) designates beneficial uses for surface and groundwater, (ii) establishes narrative and numeric water quality objectives that must be attained or maintained to protect the designated beneficial uses, and (iii) sets forth implementation programs to protect the beneficial uses of the waters of the state. The Basin Plan also incorporates State Water Resources Control Board (State Water Board) Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality Waters in California, also called the "anti-degradation policy"). In addition, the Basin Plan incorporates by reference applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. The Regional Board prepared the 1994 update of the Basin Plan to be consistent with previously adopted State and Regional Board plans and policies. This Order implements the plans, policies and provisions of the Regional Board's Basin Plan.

16. The requirements contained in this Order are in conformance with the goals and objectives of the Basin Plan and implement the requirements of the California Water Code and Recycled Water Policy.

17. State Water Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining High Quality Waters in California", also called the "anti-degradation policy") (Resolution 68-16) requires the Regional Board, in regulating the discharge of waste, to maintain high quality waters of the state until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Board's policies (e.g., quality that exceeds water quality objectives). The Regional Board finds that the discharge, as allowed in these waste discharge requirements, is consistent with Resolution No. 68-16 since this Order (1) requires compliance with the requirements sets forth in this Order, including the use of best practicable treatment and control of the discharges, (2) requires implementation of monitoring and reporting programs; and (3) requires discharges to be treated to comply with water quality objectives and water reclamation requirements.

18. Total Maximum Daily Load: Rancho Malibu is on a coastal bluff overlooking Santa Monica Bay. The State Water Board and the Regional Board designated beaches on Santa Monica Bay as impaired on the 1996 and 1998 Clean Water Act 303(d) List of Water Quality Limited Segments. On January 24, 2002 and on December 12, 2002, the Regional Board adopted Total Maximum Daily Loads (TMDL) for bacteria during dry and wet weather, respectively, for Santa Monica Bay. A purpose of these WDR/WRRs is to allow discharge while ensuring that bacteria does not contribute to the existing impairment of beneficial uses of this water body.

19. Waste Discharge: These WDR/WRRs are proposed pursuant to California Water Code section 13263 because this project has the potential to affect the quality of the waters of the State, to impact the beneficial uses of those waters, or to cause a nuisance. These WDR/WRRs conform to California Water Code section 13241 and the State Water Board Resolution 2009-011, the Recycled Water Policy, because they meet the need for recycled water use.

20. Watershed Modification: The Discharger received a Section 401 Water Quality Certification for modifications to the tributaries of Encinal Canyon on June 16, 1999 from the Regional Board. The certification is being updated and must be completed before construction can begin.

21. Water Recycling: These WRRs are proposed pursuant to California Water Code section 13523. They prescribe the limits for recycled water and the Discharger's responsibilities for the production and monitoring of recycled water. The Discharger is also responsible for inspecting point-of-use facilities, and ensuring compliance with the WRRs contained in this Order. The distribution and irrigation systems will be maintained by the Discharger and the delivery of recycled water has received the approval of the CDPH. The Regional Board has consulted with the CDPH regarding the proposed recycling project and has incorporated their recommendations in this Order.

    The Discharger prepared an engineering report on its proposed production, distribution, and use of recycled water for irrigation as required by section 60323 of title 22, California Code of Regulations (CCR). On August 9, 2004, the CDPH issued conditional approval of the engineering report and provided the Regional Board with comments and recommendations on the Discharger's recycling project. The conditions are a post-construction report and inspection demonstrating that the recycling requirements will be achieved.

22. Groundwater Management: State Water Board) Resolution 2009-0011, the Recycled Water Policy, directs the Regional Board to protect groundwater resources, which will be accomplished in this region by the development of Salt and Nutrient Management Plans (SNMP) for each groundwater basin to be included in the Basin Plan. This project has the potential to affect the quality of a water of the State, the groundwater beneath the Southern Slopes of the Santa Monica Mountains, Point Dume. Pursuant to the Recycled Water Policy as implemented by this Regional Board, an antidegradation analysis is required for this WDR to meet state requirements for the protection of groundwater. The Recycled Water Policy also directs the Regional Board to minimize the Chemicals of Emerging Concern's (CECs) impact to human health and the environment.

23. Groundwater Beneficial Uses: Based on 2011 Basin Plan Amendment, Rancho Malibu is in the Malibu Valley Groundwater Basin located in the southern slopes of the Santa Monica Mountains, Point Dume area, where beneficial uses are designated for existing agricultural supply (AGR), and potential municipal and domestic water supply (MUN) and industrial service supply (IND). Total dissolved solids, chloride, sulfate and boron groundwater limits are more stringent than secondary drinking water standards and are applied in this WDR/WRR.

24. Coliform: Basin Plan requirements for coliform levels sufficient to protect potential municipal and domestic supply beneficial uses of groundwater is 1.1 Most Probable Number (MPN)/100 milliliters (mL), as determined over a seven day period. The Plant will produce Title 22 tertiary recycled water containing total coliform bacteria concentrations not to exceed 2.2 MPN/100mL as determined from the median number over the last seven days as required by the CDPH for recycled water use. The recycled water used for irrigation shall not exceed the evapotranspiration rate calculated for plant intake. However, the groundwater at 30 feet below ground surface shall allow the oxidation of bacteria to meet the groundwater quality objective of 1.1 MPN/100mL.

25. Ocean Plan: On November 16, 2000, the State Water Board adopted a revised Water Quality Control Plan for the Ocean Waters of California (Ocean Plan). The State of California Office of Administrative Law and the United States Environmental Protection Agency approved a revised plan in 2009. The revised plan contains water quality objectives for coastal waters of California. This Order implements receiving water limitations, prohibitions, and provisions that implement the objectives in the Ocean Plan by attaining water quality objectives at the end-of-pipe, with annual testing of priority pollutants and Chemicals of Emerging Concern.

26. Area of Special Biological Significance: On March 21, 1974, the State Water Board designated a California Marine State Water Quality Protection Area from Mugu Lagoon to Latigo Point (Resolution No. 74-28). The Area of Special Biological Significance (ASBS) Number 24 is protected against discharge of water which exceeds 'natural water quality.' The water quality objectives attained by the treatment plant are more stringent than the natural water quality requirements, except for salts, and conform to ASBS policy.

NOTIFICATION

27. California Environmental Quality Act: The County of Los Angeles is the lead agency for purposes of the California Environmental Quality Act (CEQA). The County of Los Angeles certified the Final Supplemental Environmental Impact Report (EIR) for Rancho Malibu

(Project No. 91315 with Tentative Tract Map No. 46277, No. 1988050410) on October 1, 2007.

28. The Regional Board is a responsible agency for purposes of CEQA. The Regional Board has reviewed the EIR and determined that the water produced from the Plant and used for irrigation will not have potentially significant impact on the receiving groundwater quality. This Order requires compliance with the California Water Code, Division 7, and applicable regulations and policies, including the Basin Plan and Department of Public Health regulations regarding use of reclaimed water. It also includes monitoring requirements.

    On October 1, 2007, the California Department of Fish and Game Streambed Alteration Agreement #1600-2007-0029-R5 authorizes the Rancho Malibu to develop the site. The Project will alter, or partially fill three ephemeral streams on a 38.5 acre site within the 270 acre Encinal Canyon Project. The proposed project includes development only on the 38.5-acre area. The development includes 46 single family lots, and one lot for a wastewater treatment facility, one street lot, and three open space lots. The Notice of Determination on February 29, 2000, states that 232.6 acres of open space will remain in a natural, undisturbed state, of which 167 acres will be dedicated to a public agency. The October 1, 2007 Notice of Determination states that one of the open space lots will be used for irrigation as needed for disposal within evapotranspiration requirements.

    This issuance of WDR and WRR by a regulatory agency for the protection of the environment is exempt from the provisions of Chapter 3 [commencing with Public Resources Code Section 21100, et seq., Division 13, CEQA] in accordance with Section 15308, Title 14, California Code of Regulations.

29. Petition: Any person aggrieved by this action of the Regional Board may petition the State Water Resources Control Board to review the action in accordance with CWC section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Resources Control Board must receive the petition by 5:00 p.m., 30 days after the date of this Order , except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or a state holiday, the petition must be received by the State Board by 5:00 pm on the next business day. Copies of the law and regulations applicable to filling petitions may be found on the Internet at http://www.waterboards.ca.gov/public_notices/petitions/water_quality/ or will be provided upon request.

30. Public Notice: On December 14, 2012, the Regional Board notified the Discharger and interested agencies and persons of its intent to issue Waste Discharge Requirements and Water Recycling Requirements Order No. R4-2013-xxxx for the production, distribution and use of tertiary treated and disinfected effluent as recycled water, and has provided them with an opportunity to submit written comments.

The Regional Board, in a public meeting, heard and considered all comments pertaining to these Waste Discharge and Water Recycling Requirements.

IT IS HEREBY ORDERED that the Discharger shall comply with the following:

A. INFLUENT REQUIREMENTS

1. Monitoring Point: The influent flow to the treatment system shall be metered by mechanical means after the waste stream leaves the equalization basin in the Encinal Canyon Treatment Plant.

2. Domestic Waste: Influent waste shall be limited to domestic wastewater only. No water softener discharge is allowed into the collection systems that flow to the treatment unit.

3. Biological System Start-Up: The Regional Board recognizes that advanced biological systems such as the advanced OWTS proposed must undergo a "start-up" period during which the system's biological processes require seeding and stabilization. Also, there are rare cases when the biological system is compromised and reseeding is necessary to assist the recovery of the biological treatment systems more quickly than would be possible by natural re-growth. In such cases, the Discharger may import a sufficient amount of fully nitrified sludge from offsite for the purpose of seeding (or reseeding) the advanced OWTS's biological process. Reseeding, if necessary, shall not cause violations of the effluent limits of this WDR/WRR. The date, quantity and source of the sludge shall be reported in the quarterly monitoring reports.

4. The maximum daily flow of influent from the collection system to the Plant shall not exceed the discharge limit of 35,000 gpd.

B. EFFLUENT LIMITS AND REQUIREMENTS

1. Monitoring Point: The effluent shall be sampled and meet effluent requirements (1) after effluent treatment and before disinfection, (2) as effluent leaves the disinfection system and (3) before discharge to the recycled/reclaimed distribution system.

    (a) Turbidity shall be measured at Monitoring Point 1.

    (b) All effluent limits shown on Table 1 and the Monitoring and Reporting Program (MRP) Table 1 shall be measured at Monitoring Point 2.

    (c) Weekly total coliform measurements shall be taken at Monitoring Point 3, when irrigation storage is used.

2. Effluent daily flows shall be measured mechanically with an in-stream flow meter in gallons after treatment and before discharge to the land.

3. The gallons of effluent produced and recycled shall be recorded daily and reported quarterly with sufficient description and graphical representation that it shall demonstrate and quantify the efficiency of the recycling system.

4. The tertiary treated and disinfected effluent used as recycled water shall not contain constituents with concentrations exceeding limits listed in Table 1, which include groundwater quality objectives.

5. Oxidation: The recycled water shall, at all times, be adequately oxidized. The recycled water shall meet the following characteristics:

    a. The weekly average Biochemical Oxygen Demand value (BOD_5 20^0C) does not exceed 20 milligrams/Liter (mg/L). Compliance shall be determined monthly using the average of the analytical results of all 24-hour composite samples taken weekly and reported quarterly.

    b. The monthly average Total Suspended Solids (TSS) concentration shall not exceed 15 mg/L. Compliance shall be determined monthly using the average of the analytical results of all 24-hour composite samples and reported quarterly.

Table 1 Effluent Limits

Constituents	Units	Monthly (30-day) Average	Daily Maximum
Oil and grease	mg/L	10	15
Total dissolved solids	mg/L	-	1,000[1]
Total Suspended Solids	mg/L	15	45
Chloride	mg/L	-	250[1]
Sulfate	mg/L	-	250[1]
Boron	mg/L	-	1[1]
Nitrate-Nitrogen plus Nitrite-Nitrogen	mg/L	-	10[1]
Nitrite-Nitrogen	mg/L	-	1[1]
Nitrate-Nitrogen	mg/L	-	10[1]
Total flow	gpd	-	35,000
pH	pH units	-	6-9
Suspended solids	mg/L	-	15
BOD 20° C	mg/L	20	45
Turbidity	NTU	-	10[3]
MBAS	mg/L	-	0.5
Total Coliform	MPN/100 mL	-	2.2[2][4]
Fecal Coliform	MPN/100 mL	-	2.2[2]
E.coli	MPN/100 mL	-	2.2[2]

Footnote:

[1] This is a Ground Water Quality Objective in the Basin Plan.

[2] At Monitoring Point 2: Bacteria to be sampled weekly and reported monthly, with no individual measures to exceed 2.2 MPN/100mL.

[3] At Monitoring Point 1: Average of 0.2 NTU within a 24-hour period or 0.5 NTU more than 5 percent of the time within a 24-hour period and 10 NTU at any time (prior to disinfection).

[4] At Monitoring Point 3: Total Coliform to be sampled weekly when recycled water is stored and reported monthly, with no individual measures to exceed 2.2 MPN/100mL.

6. Turbidity: The turbidity of the effluent water prior to disinfection shall not exceed an average of 0.2 NTU within a 24-hour period or 0.5 NTU more than 5 percent of the time within a 24-hour period and 10 NTU at any time at Monitoring Point 1 and 2. When the turbidity requirements are exceeded, distribution of recycled water shall be suspended until such time the cause of the exceedance has been identified and corrected. The Discharger shall notify the Regional Board staff and submit a report according to this Order.

7. Maximum Contaminant Limits: The recycled water shall not contain trace, toxic and other constituents in concentrations exceeding the applicable maximum contaminant or action levels for drinking water established by the CDPH in sections 64431, 64443, 64444, 64449, 64533, Chapter 15 or at levels that adversely affect the beneficial uses of receiving groundwater. The constituents are listed in Attachments A-1 to A-7 and shall be monitored annually.

8. Priority Pollutants: Potential municipal beneficial use is designated for the groundwater at the Rancho Malibu. Discharges of Priority Pollutants shall meet the Maximum Contaminant Limits. The report describing exceedance shall include the results of a source assessment and plan for resolution of the discharge exceedance.

9. Radioactivity: The radioactivity of the recycled water shall not exceed the limits specified in sections 64441 and 64443, Article 5, Chapter 15, title 22 of the California Code of Regulations, or subsequent revisions. Radioactivity (Attachment A-2) shall be monitored annually.

10. Constituents of Emerging Concern (CECs): CECs, listed in Attachment B, shall be monitored annually. The Executive Officer may add or delete chemicals from this list as new analytical methods become available and may also make revisions to approved analytical methods as needed. A revised CEC list will be made available to the Discharger when changes occur. The Discharger shall request a deviation from the attached list, if a change is required, before collecting samples.

11. Narrative Limits: The wastewater discharged to the disposal system shall not contain salts, metals, nitrogen and phosphorous species, organic chemicals, or priority pollutants at levels that would impact groundwater or surface water that may be in hydraulic connection with groundwater.

C. GROUNDWATER LIMITS AND REQUIREMENTS

1. No Groundwater Impact: The facility is prohibited from altering the quality or elevation of the underlying groundwater.

2. Irrigation Impact: The Discharger shall prepare an irrigation operation and monitoring plan (IOMP), which must be approved by the Executive Officer, and shall apply water at agronomic rates. IOMP shall be submitted within 90 days of WDR/WRR adoption.

3. Antidegradation: The Discharger shall submit to the Regional Board an antidegradation analysis for the disposal facilities for approval by the Executive Officer, within 90 days

from the adoption of the WDR/WRRs. Water quality at existing wells in the vicinity of the project can be contrasted with the effluent quality to complete the analysis.

4. Groundwater Discharge to Surface: Discharge from the groundwater to the surface or surface water shall be minimized.

5. Groundwater Monitoring: The Discharger agrees to comply with the groundwater limits at the end-of-pipe effluent point. In the event that the effluent from the treatment plant exceeds the groundwater and effluent limits specified in Table 1, the Discharger shall submit a groundwater monitoring plan to the Regional Board upon notice by the Executive Officer. The groundwater monitoring plan shall be designed to evaluate impacts of wastewater. The workplan shall be submitted for Executive Officer approval and will describe the installation of a sufficient number of upgradient and downgradient monitoring wells, lysimeters or piezometers in the spray disposal area to evaluate the impacts of the effluent discharges to groundwater. Monitoring point completion shall be in accordance with the standards in Bulletins 74-81 and 74-90 of the California Department of Water Resources. The Discharger shall implement the monitoring plan upon approval by the Executive Officer, including any revisions required by the Executive Officer.

Table 2 – Groundwater Limits

Constituents	Units	Daily Maximum (MUN Beneficial Use)
Total dissolved solids	mg/L	1,000
Chloride	mg/L	250
Sulfate	mg/L	250
Boron	mg/L	1
Nitrate-Nitrogen plus Nitrite-Nitrogen	mg/L	10
Nitrite-Nitrogen	mg/L	1
Nitrate-Nitrogen	mg/L	10
Total Coliform	MPN/100mL	1.1

E. RECYCLED WATER REQUIREMENTS

1. Monitoring Point: The recycled water shall be sampled before discharge to the recycled/reclaimed system at Monitoring Point 3, if the treated water is stored. The recycled water quality effluent limits are the same as for effluent leaving the disinfection unit, but weekly sampling of coliform is necessary to ensure that the stored irrigation water continues to meet recycled water requirements as described below. The Discharger may request a reduced frequency of sampling after six months of compliance after start-up.

2. Coliform: Recycled water shall be, at all times, adequately disinfected such that the number of total coliform bacteria shall not exceed the limits in Table 1.

In the event of failure to meet any of the total coliform requirements, the Discharger shall suspend production of recycled water until such time of the cause of the failure has been identified and corrected.

3. Chlorine Disinfection: Chlorine disinfection shall provide a concentration-time (CT) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on the design flow herein. The CT is the product of total chlorine residual and modal contact time measured at the same period. The modal contact time is the amount of time that elapsed between the time that a tracer, such as salt or dye, is injected into the influent at the entrance of the chlorination chamber and the time that the highest concentration of the tracer is observed in the effluent from the chamber.

4. Taste or Odor: The recycled water shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect the beneficial uses of the receiving groundwater.

5. The recycled water shall not cause a measurable increase in organic chemical contaminants in the groundwater.

F. SPECIFICATIONS FOR THE USE OF RECYCLED WATER

The Discharger shall ensure that the following requirements are met.

1. Recycled water shall not be used other than as specified herein unless a revision to engineering report has been submitted to and approved by the CDPH for such other uses and/or requirements for these uses have been prescribed by this Regional Board, in accordance with Section 13523 of the California Water Code.

2. The disinfected tertiary recycled water may be used for those applications specified in Title 22, Division 4, Chapter 3 Water Recycling Criteria of the California Code of Regulations. Indirect potable uses and groundwater recharge are not covered by this Order.

3. Treated wastewater discharged to the spray disposal area shall be retained on the designated area and shall not be allowed to escape as surface flow. Incidental runoff is defined as unintended small amounts (volume) of runoff from recycled water use areas, such as unintended, minimal over-spray from sprinklers that escapes the recycled water use area. Water leaving a recycled water use area is not considered incidental if it is part of the facility design, or if it is due to excessive application, intentional overflow, application, or negligence. Irrigation system maintenance shall be consistent with the requirements found in the State Water Resource Control Board's Recycled Water Policy.

4. Spray disposal shall not be conducted during periods of rainfall.

5. Spray disposal water shall not be discharged to geologically unstable areas, shall not result in earth movement and shall not result in soil erosion.

6. Spray disposal shall not cause conditions that allow breeding of mosquitoes, gnats, midges, or other pests.

G. ALLOWABLE USES OF RECYCLED WATER

1. The disinfected tertiary treated recycled water shall be used for surface irrigation on site only.

2. Recycled water shall not be used for direct human consumption or for the processing of food or drink intended for human consumption.

H. USE AREA REQUIREMENTS

The Discharger shall be responsible to ensure that recycled water is consistent with the following:

1. Use area is an area of recycled water use with defined boundaries, which may contain one or more facilities where recycled water is used.

2. All use areas where recycled water is used that are accessible to the public shall be posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide, that include the following wording: "RECYCLED WATER – DO NOT DRINK". Each sign shall display an international symbol to alert people who do not read English.

3. No physical connection shall be made or allowed to exist between any recycled water piping and any piping conveying potable water, except as allowed under section 7604 of title 17, California Code of Regulations.

4. The portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the recycled water piping system in areas subject to public access.

5. No impoundment of disinfected recycled water shall occur within 100 feet of any domestic water wells, potable water reservoirs, and streams used as sources of water supply.

6. No irrigation areas with recycled water shall be located within 150 feet of any domestic water supply well unless all of the following conditions have been met:

    a. A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from and the ground surface;

    b. The well contains an annular seal that extends from the surface into the aquitard;

    c. The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities;

d. The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well; and,

e. The owner of the well approves of the elimination of the buffer zone requirement.

7. No irrigation shall take place within 150 feet of any reservoir or stream used as a source of domestic water.

I. PROVISIONS

1. Title 22 Approval: Final approval of a complete Title 22 Engineering Plan, with plumbing design, shall be approved by CDPH before recycled/reclaimed water use begins, but no later than 4 years after adoption of these WDR/WRRs,

2. Section 401 Certification: The Discharger must receive a Section 401 Water Quality Certification and Clean Water Act section 404 permit for modifications to the tributaries of Encinal Canyon before construction begins.

3. Irrigation Operation and Management Plan (Irrigation Plan): Discharger shall submit an operation and management plan to the Regional Board for the Executive Officer's approval within 90 days after adoption of WDR/WRR. The plan shall describe agronomic rates and propose a set of reasonably practicable measures to ensure compliance with this requirement, which may include the development of water budgets[1] for use areas, site supervisor training, periodic inspections and the use of smart controllers or other appropriate measures.

4. Operation and Maintenance Manual: The Discharger shall submit to the Regional Board an Operations and Maintenance Manual (O&M Manual) for the treatment plant and disposal facilities for approval by the Executive Officer before discharge, but no later than 4 years after adoption of these WDR/WRRs, The Discharger shall maintain the O&M Manual in useable condition, and available for reference and use by all personnel. The Discharger shall regularly review, and revise or update as necessary the O&M Manual(s) in order for the document(s) to remain useful and relevant to current equipment and operation practices. Reviews shall be conducted annually, and revisions or updates shall be completed as necessary. The O&M shall include a preventive (fail-safe) procedure and contingency plan for controlling accidental discharge and/or delivery to the Discharger of inadequately treated wastewater. The treatment plant maintenance and operation shall comply with national guidelines.

5. Disinfection Manual: The disinfection system requires additional operational supervision and maintenance to ensure successful operation at flows ranging from no-flow to the maximum flow. The Discharger shall submit a manual for these systems to the Regional Board and keep a copy on site.

[1] Water budgets allow dischargers to compare the irrigation flow against a model of the evapotranspiration requirements of the landscape to ensure the effluent is recycled and not percolated into the groundwater.

6. Treatment Plant As-Builts: The Discharger shall submit a final engineering report for the treatment plant, collection system, discharge systems, including the 'as built' engineering diagrams, to the Executive Officer within 60 days of the beginning of discharge.

7. Inspection: The Discharger shall have the treatment and disposal system inspected once every year during the life of the permit by an inspector to be retained by the Discharger. During the time Los Angeles County is operating the facility, their own inspection team shall be sufficient, unless additional inspections are requested by the RWQCB

8. Monitoring and Reporting Program (MRP) Precedence: This Order includes the attached MRP. If there is any conflict between provisions stated in the Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the Monitoring and Reporting Program prevail.

9. Standard Provisions: This Order includes the attached "Standard Provisions Applicable to Waste Discharge Requirements". If there is any conflict between provisions stated hereinbefore and said "Standard Provisions", the WDR/WRR provisions stated hereinbefore prevail.

10. Copy: The Discharger shall ensure that these requirements are maintained at the Discharger's facilities so as to be available at all times to operating personnel.

11. Proper Operation: The Discharger shall, at all times, properly operate and maintain all treatment facilities and control systems (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance includes: effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls (including appropriate quality assurance procedures).

12. Notification: The Discharger shall report any noncompliance which may endanger public health or the environment. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times. If the noncompliance has not been corrected; the notification shall provide the time and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. The following occurrence(s) must be reported to the Executive Officer within 24-hours.

    1. Any bypass from any portion of the treatment facility.
    2. Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge or any other circumstances.
    3. Any treatment plant upset which causes the effluent limitation of this order to be exceeded [CWC Sections 13263 and 13267].

13. The report shall include, but is not limited to, the following information, as appropriate:

    a. Nature and extent of the violation;

b. Date and time, when the violation started, when compliance was achieved, and, when delivery was suspended and restored, as applicable;
c. Duration of violation;
d. Cause(s) of violation;
e. Corrective and/or remedial actions taken and/or shall be taken with time schedule for implementation; and
f. Impact of the violation.

14. Certification: Supervisors and operators of the wastewater recycling facility shall possess a certificate of appropriate grade as specified in title 23, California Code of Regulations, section 3680 or subsequent revisions.

15. Material Change: In accordance with section 13522.5 of the California Water Code, and title 22, section 60323 of the California Code of Regulations, the Discharger shall file an engineering report, prepared by a properly qualified engineer registered in California, of any material change or proposed change in character, location or volume of the wastewater discharge, recycled water or its uses to the Regional Board and the CDPH.

16. Extension: For any extension or expansion of the recycled water system or use areas, the Discharger shall submit a report detailing the extension or expansion plan for approval by the CDPH. Following construction, as-built drawings shall be submitted to the CDPH for approval prior to delivery of recycled water. The Executive Officer shall be furnished with as-built drawings and a copy of the CDPH approval. Expansion of the recycled water system requires the existing system to be in compliance and the approval of the Executive Officer.

17. Ownership: The Discharger shall notify the Executive Officer, in writing, at least 30 days in advance of any proposed transfer of ownership and/or operation of the recycling facility and responsibility for complying with this Order. The notice shall include a written agreement between the existing and new recycled water Discharger indicating the specific date for the transfer of responsibility for compliance with this Order. The agreement shall include an acknowledgement that the Discharger is liable for any violations that occur up to the transfer date and the new recycled water Discharger is liable from the transfer date on.

18. Inspection: The Discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

    a. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;

    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order, or as otherwise authorized by the California Water Code, any substances or parameters at any location.

19. The Discharger must comply with all conditions of these water recycling requirements. Violations may result in enforcement actions, including Regional Board orders or court orders, requiring corrective action or imposing civil monetary liability, or in modification or revocation of these requirements.

20. These requirements do not exempt the Discharger from compliance with any other laws, regulations, or ordinances that may be applicable; they do not legalize the recycling and use facilities; and they leave unaffected any further constraint on the use of recycled water at certain sites that may be contained in other statutes or required by other agencies.

21. In an enforcement action, it shall not be a defense by the Discharger that it would have been necessary to halt or to reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the Discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost.

22. After notice and opportunity for a hearing, this Order may be modified, revoked and reissued, or terminated for cause, which include but is not limited to: failure to comply with any condition in this Order; endangerment of human health or environment resulting from the permitted activities in this Order; obtaining this Order by misrepresentation or failure to disclose all relevant facts; acquisition of new information that could have justified the application of different conditions if known at the time of Order adoption.

23. The filing of a request by the Discharger for modification, revocation and reissuance, or termination of the Order, a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

24. The Discharger shall furnish, within a reasonable time, any information the Regional Board or the CDPH may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish the Regional Board, upon request, with copies of records required to be kept under this Order.

25. Trucking Reports: The Discharger shall provide quarterly reports of off-site trucking. The Executive Officer may review these reports and make a determination if the volume removed constitutes a material change from the ROWD and, if permit revision is necessary.

J. PROHIBITIONS

1. Limited Discharge: There shall be no direct or indirect discharge of wastes to groundwater or surface water, waters of the State, at any time other than specified by this WDR/WRR.

2. Waste Characteristics: Wastes discharged shall not impart tastes, odors, color, foaming or other objectionable characteristics to the receiving groundwater.

3. Stormwater protection: Adequate facilities shall be provided to divert surface and stormwater away from the treatment plant and disposal system and from areas where any potential pollutants are stored.

4. Freeboard: Adequate freeboard and/or protection shall be maintained in the recycled water storage tanks and process tanks to ensure that rainfall shall not cause overtopping.

5. Sludge: There shall be no onsite disposal of sludge. Any offsite disposal of sewage or sludge shall be made only to a legal point of disposal. For purposes of this Order, a legal disposal site is one for which requirements have been established by a California Regional Water Quality Control Board, and which is in full compliance therewith. Any sewage or sludge handling shall be in such a manner as to prevent its reaching surface waters or watercourses.

6. Odors: Sewage odors shall not be detectable beyond the property owned and controlled by the Discharger.

7. Nuisance: The discharge of waste shall not create a condition of pollution, contamination, or nuisance.

8. Noncompliant waste: Any wastes that do not meet the foregoing requirements shall be held in impervious containers and discharged at a legal point of disposal.

9. Bypass (the intentional diversion of waste stream from any portion of a treatment facility) is prohibited. The Regional Board may take enforcement action against the Discharger for bypass unless:

    a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that cause them to become inoperable, or substantial and permanent loss in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.)

    b. There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance.

    c. The Discharger must submit written notice at least 24 hours in advance of the need for a bypass to the Regional Board Executive Officer.

10. Pumping waste from the treatment system for purposes other than normal disposal of process sludge, emergencies, removal of non-compliant waste and regularly scheduled maintenance, indicates loss of system performance, and is also prohibited. All emergency conditions must be reported and may include loss of disposal capability.

11. WDR Order No. 91-021 is hereby terminated, except for enforcement purposes.

K. EFFECTIVE DATE OF THE ORDER

This Order takes effect upon its adoption.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on February 7, 2013.

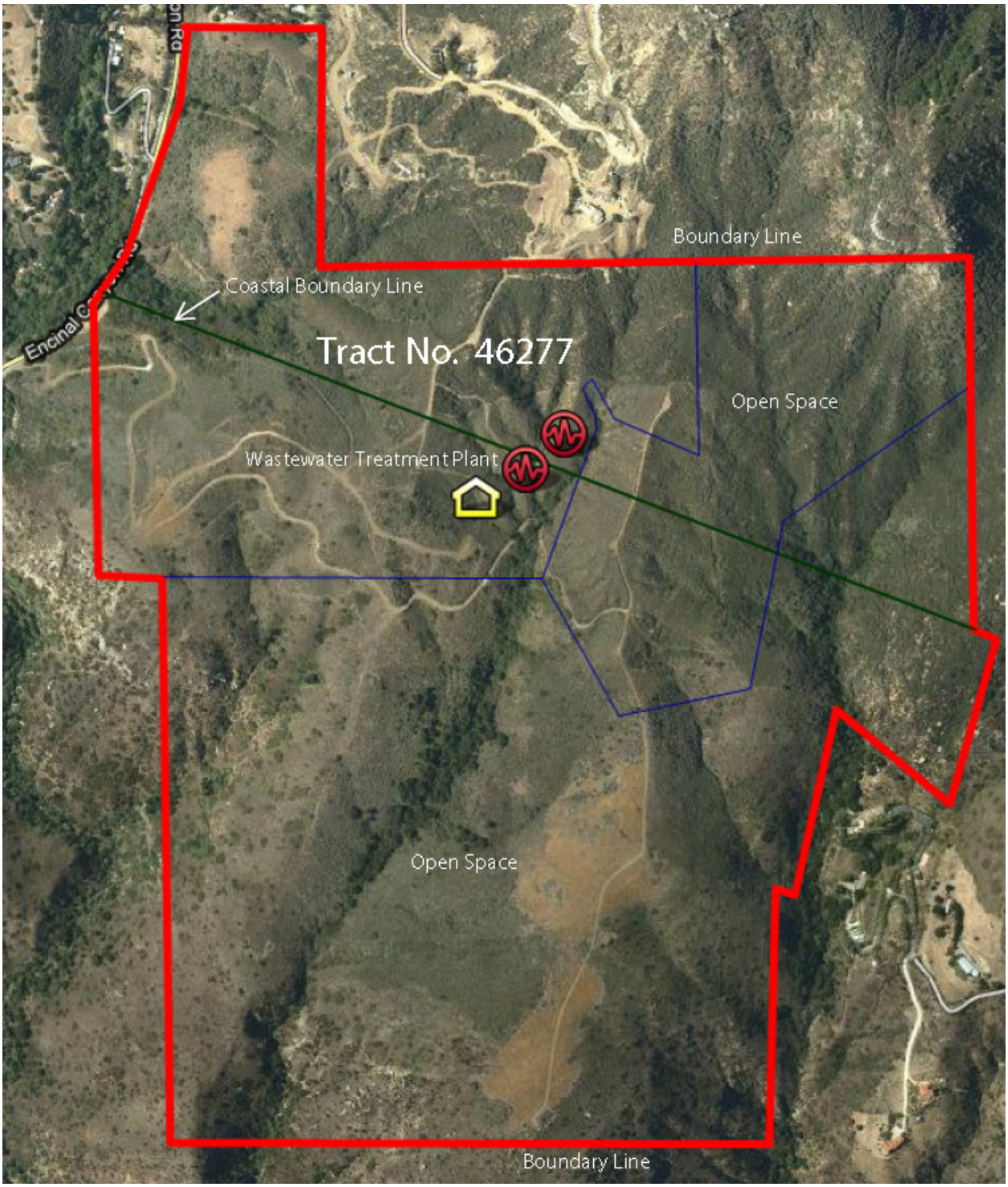
_____
Samuel Unger, P.E.
Executive Officer

TENTATIVE

Figure 1: Rancho Malibu Location Photo

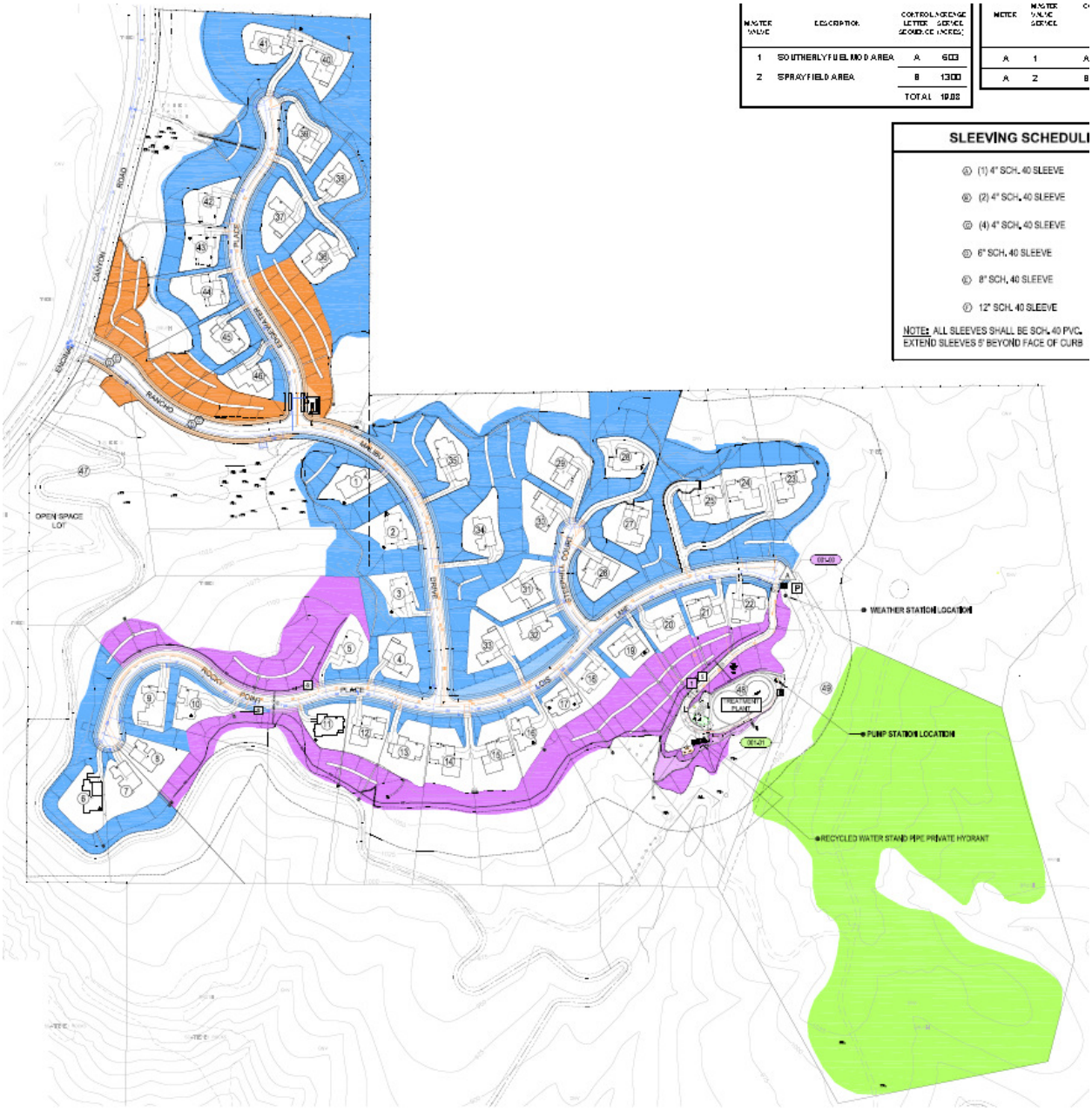
TENTATIVE

Figure 2: Encinal Canyon Wastewater Treatment Plant Location



TENTATIVE

Map 1: Rancho Malibu Map



Attachment A-1

Table 64431-A – Inorganic Chemicals*	
Chemical	**Maximum Contaminant Levels (mg/L)**
Aluminum	1
Antimony	0.006
Arsenic	0.05
Asbestos	7 MFL**
Barium	1
Beryllium	0.004
Cadmium	0.005
Chromium	0.05
Cyanide	0.15
Mercury	0.002
Nickel	0.1
Selenium	0.05
Thallium	0.002
Fluoride	2

California Code of Regulation (CCR) Title 22, Section 64431
**MFL = million fibers per liter; MCL for fibers exceeding 10µm in length.

Attachment A-2

Table 4 – Radioactivity*	
Chemical	**Maximum Contaminant Levels (pCi/L)**
Combined Radium-226 and Radium-228	5
Gross Alpha Particle Activity (Including Radium-226 but Excluding Radon and Uranium)	15
Tritium	20,000
Strontium-90	8
Gross Beta Particle Activity	50
Uranium	20

California Code of Regulation (CCR) Title 22, Section 64443
*Last update: September 12, 2003.

TENTATIVE

Attachment A-3

Table 64444-A – Organic Chemicals*	
Chemical	**Maximum Contaminant Levels (mg/L)**
(a) Volatile Organic Chemicals	
Benzene	0.001
Carbon Tetrachloride (CTC)	0.0005
1,2-Dichlorobenzene	0.6
1,4-Dichlorobenzene	0.005
1,1-Dichloroethane	0.005
1,2-Dichloroethane (1,2-DCA)	0.0005
1,1-Dichloroethene (1,1-DCE)	0.006
Cis-1,2-Dichloroethylene	0.006
Trans-1,2-Dichloroethylene	0.01
Dichloromethane	0.005
1,2-Dichloropropane	0.005
1,3-Dichloropropene	0.0005
Ethylbenzene	0.3
Methyl-tert-butyl-ether (MTBE)	0.013
Monochlorobenzene	0.07
Styrene	0.1
1,1,2,2-Tetrachloroethane	0.001
Tetrachloroethylene (PCE)	0.005
Toluene	0.15
1,2,4-Trichlorobenzene	0.005
1,1,1-Trichloroethane	0.2
1,1,2-Trichloroethane	0.005
Trichloroethylene (TCE)	0.005
Trichlorofluoromethane	0.15
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.2
Vinyl Chloride	0.0005
Xylenes (m,p)	1.75**
(b) Non-Volatile synthetic Organic Chemicals	
Alachlor	0.002
Atrazine	0.001
Bentazon	0.018
Benzo(a)pyrene	0.0002
Carbofuran	0.018
Chlordane	0.0001
2,4-D	0.07
Dalapon	0.2
1,2-Dibromo-3-chloropropane (DBCP)	0.0002

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Table 64444-A – Organic Chemicals*	
Chemical	**Maximum Contaminant Levels (mg/L)**
Di(2-ethylhexyl)adipate	0.4
Di(2-ethylhexyl)phthalate	0.004
Dinoseb	0.007
Diquat	0.02
Endothall	0.1
Endrin	0.002
Ethylene Dibromide (EDB)	0.00005
Glyphosate	0.7
Heptachlor	0.00001
Heptachlor Epoxide	0.00001
Hexachlorobenzene	0.001
Hexachlorocyclopentadiene	0.05
Lindane	0.0002
Methoxychlor	0.03
Molinate	0.02
Oxamyl	0.05
Pentachlorophenol	0.001
Picloram	0.5
Polychlorinated Biphenyls	0.0005
Simazine	0.004
Thiobencarb	0.07
Toxaphene	0.003
2,3,7,8-TCDD (Dioxin)	3×10^{-8}
2,4,5-TP (Silvex)	0.05

California Code of Regulation (CCR) Title 22, Section 64444
*Last update: September 12, 2003.
**MCL is for either a single isomer or the sum of the isomers.

Attachment A-4

Table 64533-A – Disinfection Byproducts*	
Constituent	**Units**
Total Trihalomethanes (TTHM)	.08 ppb
Bromodichloromethane	ppb
Bromoform	ppb
Chloroform	ppb
Dibromochloromethane	ppb
Haloacetic acid (five) (HAA5)	.06 ppb
Monochloroacetic acid	ppb
Dichloroacetic acid	ppb
Trichloroacetic acid	ppb
Monobromoacetic acid	ppb
Dibromoacetic acid	ppb
Bromate**	.01ppb
Chlorite***	1 ppb

California Code of Regulation (CCR) Title 22, Section 64533, Chapter 15.5 *Last update: January 28, 2004.

** Bromate is listed for plants using ozone disinfection only.

**** Chlorite is listed for plants using chlorine dioxide only.

Attachment A-5

Table 64449-A –Secondary Maximum Contaminant Levels*	
Chemical	**Units**
Aluminum	.2 mg/L
Copper	1. 0mg/L
Corrosivity	Non corrosive
Foam Agents (MBAS)	.5 mg/L
Iron	.3 mg/L
Manganese	.05 mg/L
Methyl-tert-butyl-ether (MTBE)	.005 mg/L
Odor – Threshold	3 units
Silver	.1 mg/L
Thiobencarb	.001 mg/L
Turbidity	5 units
Zinc	5 mg/L

California Code of Regulation (CCR) Title 22, Section 64449
*Last update September 12, 2003.

Attachment A-6

Monitoring for Chemicals with Notification Levels
n-Butylbenzene
sec-Butylbenzene
tert-Butylbenzene
Carbon disulfide
Chlorate
2-Chlorotoluene
4-Chlorotoluene
Diazinon
Dichlorodifluoromethane (Freon 12)
1,4-Dioxane
Ethylene glycol
Formaldehyde
Isopropylbenzene
Manganese
Methyl isobutyl ketone (MIBK)
Naphthalene
n-Nitrosodiethyamine (NDEA)
n-Nitrosodimethylamine (NDMA)
Perchlorate
n-Propylbenzene
Tertiary butyl alcohol (TBA)
1,2,3-Trichloropropane (1,2,3-TCP)
1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
Vanadium

Attachment A-7

Monitoring for Remaining Priority Pollutants

Pesticides	**Base/Neutral Extractibles**	Di-n-butyl phthalate
Aldrin	Acenaphthene	Di-n-octyl phthalate
Dieldrin	Benzidine	Diethyl phthalate
4,4'-DDT	Hexachloroethane	Dimethyl phthalate
4,4'-DDE	Bis(2-chloroethyl)ether	Benzo(a)anthracene
4,4'-DDD	2-chloronaphthalene	Benzo(a)fluoranthene
Alpha-endosulfan	1,3-dichlorobenzene	Benzo(k)fluoranthene
Beta-endosulfan	3,3'-dichlorobenzidine	Chrysene
Endosulfan sulfate	2,4-dinitrotoluene	Acenaphthylene
Endrin aldehyde	2,6-dinitrotoluene	Anthracene
Alpha-BHC	1,2-diphenylhydrazine	1,12-benzoperylene
Beta-BHC	Fluoranthene	Fluorene
Delta-BHC	4-chlorophenyl phenyl ether	Phenanthrene
Acid Extractibles	4-bromophenyl phenyl ether	1,2,5,6-dibenzanthracene
2,4,6-trichlorophenol	Bis(2-chloroisopropyl)ether	Indeno(1,2,3-cd)pyrene
P-chloro-m-cresol	Bis(2-chloroethoxyl)methane	Pyrene
2-chlorophenol	Hexachlorobutadiene	**Volatile Organics**
2,4-dichlorophenol	Isophorone	Acrolein
2,4-dimethylphenol	Naphthalene	Acrylonitrile
2-nitrophenol	Nitrobenzene	Chlorobenzene
4-nitrophenol	N-nitrosodimethylamine	Chloroethane
2,4-dinitrophenol	N-nitrosodi-n-propylamine	1,1-dichloroethylene
4,6-dinitro-o-cresol	N-nitrosodiphenylamine	Methyl chloride
Phenol	Bis(2-ethylhexyl)phthalate	Methyl bromide
---	Butyl benzyl phthalate	2-chloroethyl vinyl ether

Attachment B – Effluent Monitoring of CECs

Parameter	Units
17α-Ethinyl Estradiol	ng/L
17β-Estradiol	ng/L
Estrone	ng/L
Bisphenol A	ng/L
Nonylphenol and nonylphenol polyethoxylates	ng/L
Octylphenol and octylphenol polyethoxylates	ng/L
Polybrominated diphenyl ethers	ng/L
Acetaminophen	ng/L
Amoxicillin	ng/L
Azithromycin	ng/L
Carbamazepine	ng/L
Caffeine	ng/L
Ciprofloxacin	ng/L
DEET	ng/L
Dilantin	ng/L
Gemfibrozil	ng/L
Ibuprofen	ng/L
Lipitor	ng/L
Primidone	ng/L
Sulfamethoxazole	ng/L
Trimethoprim	ng/L
Salicylic acid	ng/L
TCEP	ng/L
Triclosan	ng/L